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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/622,236	07/18/2003	Todd E. Lizotte	IDEDYN P04GUSP1	4636

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EXAMINER
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TRAIL, ALLYSON NEEL

ART UNIT	PAPER NUMBER
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2876

DATE MAILED: 06/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/622,236

Applicant(s)

LIZOTTE ET AL.

Examiner

Allyson N. Trail

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-46 is/are pending in the application.
- 4a) Of the above claim(s) 23-40 and 46 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-22 and 41-45 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 3/05/2005, 2/04, 8/03, 7/03, 2/03
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

## **DETAILED ACTION**

### ***Remarks***

1. Applicant's have elected group I, which includes claims 1-22 and 41-45.

### ***Claim Objections***

2. Claim 41 is objected to because of the following informalities:

Re claim 41, line 13: replace "with" with --will--.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 3, 7, 8, 10-12, 16, and 18 are rejected under 35 U.S.C. 102(b) as being anticipated by Daniel et al (2001/0005570).

Daniel et al teaches the following in regards to claims 1, 3, 11, 16, and 18:

"A method for marking articles or documents by placing on a substrate (1) a multi-layer optical complex consisting of an identifying portion (2, 7) such as bar codes, a photograph or characters, and an authenticating portion consisting of a diffracting optical mark, said portions being arranged one on top of the other in such a way that they cannot be separated without destroying the authenticating portion." (Abstract).

"The present invention relates to a procedure for marking documents or products, implementing optical markers such as diffraction gratings, such as for example holograms." (Paragraph 0001).

"The authenticifier consists of an interference pattern commonly referred to as a "hologram" that forms an indissociable part of the optical complex, which is read by the diffraction of incident light. It can reproduce a non-significant image, or can even include a portion of the information necessary for the identification of the product." (Paragraph 0039).

Daniel et al teaches the following in regards to claim 7:

"This procedure is characterized essentially by the fact that it consists of implementing, on a substrate, a first hologram of a first object that is readable under white light, [and] of implementing on the same substrate a second hologram, known as a "Fourier hologram", of a second object." (Paragraph 0005).

Daniel et al teaches the following in regards to claims 8, 10, and 12:

"FIG. 5 represents a diagrammatic view of a device for reading the authenticifier, in a variant of an embodiment in accordance with which the diffraction grating recreates an image that corresponds to a set of dots. The techniques for the implementation of a stamped diffraction grating or of a stamped holographic image are known to those skilled in the art, and will not be discussed in detail within the context of the present invention." (Paragraph 0060).

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5. Claims 41, 42, 44, and 45 are rejected under 35 U.S.C. 102(b) as being anticipated by Zemsky (4,175,346).

Zemsky teaches the following in regards to claims 41, 42, 44, and 45:

“A firearm having marking elements as an integral part of its bore surface which are arrayed according to a code indicating the identification number of the firearm so that any bullets fired therefrom will bear markings corresponding to the marking element array which markings will indicate the identification number of the firearm. The marking elements being an integral part of the firearm cannot be removed without damaging or disabling the firearm. A wide variety of marking element arrays are possible so that a large number of identification numbers may be encoded.” (Abstract).

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 2 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Daniel et al (2001/0005570) in view of Rivalto (2004/0150351).

Daniel et al's teachings are discussed above. Daniel et al fails to specifically teach an encoded hologram multi-dimensional barcode.

Rivalto teaches the following in regards to claims 2 and 17:

“Authentication can be also be provided by using selected digits from an assigned package tracking number as a unique pin number. Still further, authentication can be provided by presenting a receipt, which may include a conventional, two-dimensional, three-dimensional, or holographic bar code, for example, to a reader or camera.” (Paragraph 0024).

In view of Rivalto's teachings, it would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to use a holographic barcode as taught by Rivalto in place of the encoded hologram taught by Daniel et al. Although the encoded hologram taught by Daniel et al is not specifically in the form of a barcode, one would be motivated to use a holographic barcode in order to store larger amounts of data, which would make the hologram provide better security.

Claims 4, 5, 19, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Daniel et al (2001/0005570) in combination with Rivalto (2004/0150351) and further view of Caulfield (5,056,039).

Daniel et al's teachings in combination with the teachings of Rivalto are discussed above. The combination fails to specifically teach spectral encoding variable being a wavelength of radiation used in encoding the hologram and spectral encoding variable having a unique effect in determining the encoded pattern of marks.

Caulfield teaches the following in regards to claims 4, 5, 19, and 20:

“A method of making an N.sup.4 weighted holographic array comprising the steps of selecting a recording medium and encoding a plurality of individual

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holograms, N an integer on the recording medium utilizing a reference beam of coherent, monochromatic, electromagnetic radiation.” (Claim 16).

In view of Caulfield’s teachings, it would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to use Caulfield’s method of encoding the hologram in creating the hologram taught by the combination of Daniel et al and Rivalto. Using radiation to encode a hologram is a procedure that is well known. One would be motivated to use Caulfield’s method in order to accurately encode the hologram, which would ensure that the correct information is encoded on the hologram.

Claims 3, 6, 18, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Daniel et al (2001/0005570) in view of Lemelson et al (2003/0121980).

Daniel et al’s teachings are discussed above. Daniel et al fails to specifically teach the encoded pattern being concentric circular barcode, comprising an array of concentric ring patterns.

Lemelson et al teaches the following in regards to claims 3, 6, 18, and 21:

“FIG. 1B is a schematic view of a generally circular bar code of the present invention in which the concentric black circles or rings include an electro-optically readable code of reflective circular areas embedded within and along selected ones of the black circles or rings.” (Paragraph 0017).

In view of Rivalto’s teachings, it would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to use concentric circular barcodes comprising arrays of concentric ring patterns which include

encoded information. Rivalto simply teaches using coded information for the purpose of security. One would be motivated to use a concentric circular barcode as a security measure for the fact that concentric circular barcodes are easily visible, difficult to forge, and can hold a large amount of data.

Claims 9 and 13-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Daniel et al (2001/0005570) in view of Woo et al (2004/0221639).

Daniel et al's teachings are discussed above. Daniel et al fails to specifically teach conjoining an algorithm related artwork with the encoded pattern.

Woo et al teaches the following in regards to claims 9 and 13-15:

"According to the present invention, hard metal articles such as automotive products, bats and tubes for bicycle frames and other sporting and fitness products have holographic images or holograms coined or microengraved in their surfaces by a die or dies having the negative of the images impressed in their surfaces." (Paragraph 0035).

In view of Woo et al's teachings, it would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to engrave a hologram, which includes identification information, on a firearm (or metal sporting object) as disclosed by Woo et al. Daniel et al teaches using encoded holograms to store encoded data and for security purposes. One would be motivated to use encoded holograms on firearms in order to store owner



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identification. Furthermore, one would be motivated to use the marking method taught by Woo et al in order to securely attach the hologram to the firearm.

Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Daniel et al (2001/0005570) in view of Kim (2003/0234533).

Daniel et al's teachings are discussed above. Daniel et al fails to specifically teach conjoining an algorithm related artwork with the encoded pattern.

Kim teaches the following in regards to claim 22:

"A novel postage stamp is covered with a partially transparent holographic film containing, including but not limited to, a logo, drawing and phrase, on the face of the postage stamp." (Abstract).

In view of Kim's teachings, it would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to having the hologram appear as artwork as taught by Kim. Holograms containing images are well known in the art. One would be motivated to use a hologram appearing as artwork for visual effects.

8. Claim 43 is rejected under 35 U.S.C. 103(a) as being unpatentable over Zemsky (4,175,346) in view of Aldstadt (2004/0249652).

Zemsky's teachings are discussed above. Zemsky fails to teach using a checksum for error detection.

Aldstadt teaches the following in regards to claim 43:

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"Item processing center 20 may designate the last digit of the barcode as checksum digit 240 to detect errors while processing the barcode." (Paragraph 0029).

In view of Aldstadt's teachings, it would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to use Aldstadt's checksum method and apply the method to reading the engraved code taught by Zemsky. Zemsky's teaches using encoded data on a handgun and disabling the gun if the code is removed in order to ensure that the owner identification remains on the gun. Reading the code correctly is vital for determining the gun owner. One would be motivated to use a checksum to guarantee that the code was read correctly and the rightful gun owner is identified.

### ***Conclusion***

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Meng (6,001,510), Miano et al (2004/0045204), Meikka et al (6,666,995), and Vor Keller et al (6,230,946).

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to *Allyson N. Trail* whose telephone number is (571) 272-2406. The examiner can normally be reached between the hours of 7:30AM to 4:00PM Monday thru Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G. Lee, can be reached on (571) 272-2398. The fax phone number for this Group is (703) 872-9306.

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Communications via Internet e-mail regarding this application, other than those under 35 U.S.C. 132 or which otherwise require a signature, may be used by the applicant and should be addressed to [allyson.trail@uspto.gov].

*All Internet e-mail communications will be made of record in the application file. PTO employees do not engage in Internet communications where there exists a possibility that sensitive information could be identified or exchanged unless the record includes a properly signed express waiver of the confidentiality requirements of 35 U.S.C. 122. This is more clearly set forth in the Interim Internet Usage Policy published in the Official Gazette of the Patent and Trademark on February 25, 1997 at 1195 OG 89.*

Allyson N. Trail  
Patent Examiner  
Art Unit 2876  
June 8, 2005

  
**JARED J. FUREMAN**  
**PRIMARY EXAMINER**